APRIL/MAY 2023

FABC25C/CABC25C/BABC25C — BIOCHEMISTRY - II

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Write the reaction catalysed by Malate Dehydrogenase.

2. Give the organ and subcellular localization of urea cycle enzymes.

3. Mention the defect associated with McArdle's disease.

4. What is dehydration?

5. Aldolases are lyases. Justify.

6. What will happen to the enzyme activity, if the substrate concentration is increased in the medium? Show diagrammatically.

7. What are amber and ochre codons?

8. What is sigma factor? In which process it is involved?

9. Write any two functions of Niacin.

10. Give the sources of vitamin B_{12} for vegans and non-vegans.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Identify the mechanism of oxidative demination with suitable example.

Or

(b) Examine the significance of HMP shunt.

12. (a) Identify the clinical features of Alkaptonuria.

Or

(b) Discuss on the various causative factors of the obstructive and hepatic jaundice.

13. (a) Explain induced fit theory of enzyme action.

Or

(b) Analyze the role of Isomerases and Lysaes.

14. (a) Make use of a diagram to explain leading strand synthesis in prokaryotes.

Or

(b) Examine important features of genetic code.

15. (a) Outline the biological functions of vitamin C.

Or

(b) Enumerate the biological role of Thiamine.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write down the steps of HMP shunt and highlight its significance.

17. Discuss in detail about the etiology, types and diagnosis of diabetes mellitus.

18. Elaborate an essay on different types of enzyme inhibition.

19. Detail on the general mechanism of prokaryotic translation.

20. Describe the occurrences and biological functions of Vitamin d and Vitamin K.
